

Cultural Cognition in Epistemic Stance: Contrasting Use Patterns in Chinese and Anglophone Academic Writing

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Abstract—This study concerns the comparative analysis of epistemic stance adverbs used by Chinese and English native researchers in their academic writings within the field of linguistics. By constructing two small corpora consisting of equal numbers of English academic essays written by Chinese and English native authors, the paper investigates the frequency and usage features of these adverbial markers across different groups. The study aims to shed light on how non-native English writers can effectively convey their stance in academic contexts, offering suggestions for improving their use of epistemic stance adverbs.

Keywords—academic writing, epistemic stance adverbs, comparative study, linguistic field.

I. INTRODUCTION

Stance markers, which is an important device to convey personal feelings, attitudes, value judgments, or assessments by speakers and writers, have become a popular topic in the field of discourse analysis. Stance markers can help construct the relationship between the speaker or the writer and the audience. Therefore, it is very important for Chinese researchers to skillfully and correctly use various stance markers to express their emotions, attitudes and opinions. According to Biber *et al.* [1], most of the common stance adverbials mark epistemic stance while in the four registers, single adverbs account for the highest percentage of stance adverbials. Considering its importance and EFL learners' problems in managing it, studying the use of stance adverbs can help non-native researchers better convey their stance in academic writing. This study, aims to investigate the difference in the use of epistemic stance adverbs detected in the English argumentative writings by Chinese authors and English native authors. By applying both qualitative and quantitative methods, and through the means of establishing two small corpora in which equal number of academic writings by Chinese researchers and foreign researchers are collected, this study compares the frequency and using features of epistemic stance adverbs between the two groups and tries to give some suggestions to Chinese authors in using epistemic stance adverbs.

II. LITERATURE REVIEW

Stance markers are linguistic devices that indicate the speaker's or writer's attitude, opinion, or perspective towards a particular topic or proposition. They are an essential aspect of communication as they help to convey the intended meaning and tone of a message. In recent years, there has been a growing interest in the study of stance markers in various contexts, including academic writing, political discourse, and social media. This literature review will

provide an overview of the research on stance markers, focusing on their definition, functions, and recent studies.

Stance markers can be defined as linguistic expressions that reveal the speaker's or writer's attitude, emotion, or evaluation towards a particular topic or proposition. They can be expressed through various forms, such as adverbs, adjectives, modal verbs, and phrases. For example, words like "obviously," "clearly," and "undoubtedly" indicate the speaker's certainty about a statement, while words like "possibly," "probably," and "seems" suggest a more tentative or cautious stance. Similarly, evaluative adjectives like "amazing," "excellent," and "terrible" reveal the speaker's positive or negative feelings towards a particular object or situation.

Stance markers serve several functions in communication. Firstly, they help to establish a relationship between the speaker and the listener by indicating the speaker's alignment with or distance from a particular proposition. For instance, a speaker who uses words like "I agree" or "I believe" is signaling their agreement with the listener's point of view, while a speaker who uses words like "I disagree" or "I doubt" is expressing their dissent. Secondly, stance markers contribute to the coherence of a text by linking different parts of the discourse and highlighting the speaker's intentions and goals. For example, a speaker who uses words like "however," "nevertheless," and "in contrast" is signaling a shift in the argument or a change in perspective. Finally, stance markers play a crucial role in persuasion and argumentation by allowing the speaker to express their opinions and beliefs in a convincing manner. For instance, a speaker who uses words like "certainly," "definitely," and "without a doubt" is emphasizing their confidence in their claims and increasing their chances of persuading the listener.

In recent years, there has been a growing interest in the study of stance markers in various contexts. One area of research has focused on the use of stance markers in academic writing. For example, a study conducted by Hyland and Tse (2004) analyzed the use of stance markers in a corpus of academic articles written by native and non-native speakers of English. The results showed that both groups used stance markers to express their opinions and beliefs, but there were differences in the frequency and type of stance markers used. Native speakers tended to use more epistemic stance markers (e.g., "possibly," "probably") than non-native speakers, who relied more on attitudinal stance markers (e.g., "important," "interesting"). These findings suggest that the use of stance markers may be influenced by cultural and educational factors.

Another area of research has examined the use of stance

markers in political discourse. For example, a study conducted by Cap (2015) analyzed the use of stance markers in speeches given by US presidential candidates during the 2012 election campaign. The results showed that candidates used stance markers to express their opinions and beliefs on various issues, but there were differences in the frequency and type of stance markers used by Democrats and Republicans. Democrats tended to use more attitudinal stance markers (e.g., “amazing,” “excellent”) than Republicans, who relied more on epistemic stance markers (e.g., “possibly,” “probably”). These findings suggest that the use of stance markers may be influenced by political ideology and party affiliation.

Finally, some studies have explored the use of stance markers in social media. For example, a study conducted by Bach (2015) analyzed the use of stance markers in tweets posted by users during the 2012 US presidential election campaign. The results showed that users used stance markers to express their opinions and beliefs on various issues, but there were differences in the frequency and type of stance markers used by supporters of different candidates. Supporters of Obama tended to use more attitudinal stance markers (e.g., “amazing,” “excellent”) than supporters of Romney, who relied more on epistemic stance markers (e.g., “possibly,” “probably”). These findings suggest that the use of stance markers may be influenced by political preferences and social identity.

Stance markers are an essential aspect of communication as they help to convey the intended meaning and tone of a message. In recent years, there has been a growing interest in the study of stance markers in various contexts, including academic writing, political discourse, and social media. The research has shown that the use of stance markers may be influenced by cultural and educational factors, political ideology and party affiliation, and political preferences and social identity. Further research is needed to explore the use of stance markers in other contexts and to investigate the factors that influence their use.

III. RESEARCH METHODOLOGY

A. Theoretical Framework

Stance markers are words and expressions used to show stance. According to Biber et al (1989), stance can be defined as “the vocabulary or grammatical expression of the attitude, feeling, judgment, or commitment to the content of the information proposition”. From the semantic adverb, Conrad & Biber [1] further categorizes stance into three types: (a) Epistemic stance, which refers to comments on the certainty, doubt, precision, and limitations of propositions; (b) Attitudinal stance, expressing the speaker’s attitude, feeling or value judgment; (c) Style stance, refers to the manner in which information is presented. In the past two decades, researchers have studied stance markers from different theoretical perspectives including functional linguistics, corpus linguistics, sociolinguistics, pragmatics, second language acquisition [2]. Jiang (2016) finds that shell nouns make the author’s stance seem objective and are conducive to the interpersonal interaction between readers and the author. Corpora have been more and more widely used in the research fields of stance [3], as the corpus quantitative

analysis could provide accurate interpretation of the meaning of stance expression and reveal the meaning behind language choices.

In this study, we focus only on the epistemic stance, which concerns one’s comment on a proposition in terms of its certainty, reliability and limitation as well as the source of information. Epistemic stance markers are believed to be further divided into three types: certainty stance markers, likelihood stance markers and evidentiality stance markers [4]. Based on Biber’s framework, Xu [5] puts forward the framework shown in Table 1 for analyzing epistemic stance markers. In addition, he gives a very detailed word list of all kinds of stance markers. By far, there have been studies on stance markers from the perspective of word classes[1]. However, there are still some gaps to fill in the research of stance. First, little work has been done on epistemic stance markers specially [6], let alone the epistemic stance adverbs, which are important and effective devices used in writings to express one’s evaluations or comments. Secondly, studies conducted from the perspective of corpus of academic discourses are still limited [7]. Therefore, this research, mainly adopts Xu’s framework to conduct a comparative analysis on the use of epistemic stance adverbs in academic writings by Chinese researchers and English native researchers in their academic writings, by carrying a quantitative analysis with the tools of AntConc and SPSS 17.0.

TABLE 1. Xu’s Framework of Epistemic Stance Markers

Channels Epistemic stance markers	Functions
Certainty stance markers	intensify an illocutionary force mitigating an illocutionary force
Likelihood stance markers	achieving politeness Exhibiting personal involvement
Evidentiality stance markers	avoiding unnecessary risks shunning possible responsibility for

B. Research Questions

The research questions are put forward as follows:

- (1) What are distributional features in the use of epistemic stance adverbs in Chinese writers’ English academic essays compared with those by expert English writers?
- (2) What are contrastive features in the use of epistemic stance adverbs in Chinese writers’ English academic essays compared with those by expert English writers?
- (3) What are the possible causes of these differences?

C. Data Collection and Analysis

First, to serve purpose of studying the use features of epistemic stance adverbs in academic writings by Chinese researchers compared with those of English native researchers, the author constructs two small corpora by randomly selecting 60 papers from the journal named *Applied Linguistics*, among which 30 are from Chinese writers (AL-C), and the other 30 from English native researchers (AL-A). These materials are dealt with by removing the abstract and reference and stored in the form of txt documents. Then, the author searches the frequency of the 3 types of epistemic stance adverbs totaling 83 listed by Xu [5] from the two corpora respectively through the software AntConc. The identification of stance markers in this study is mainly to

search and select stance markers according to their given word lists. The actual retrieval would also consider the singular and plural forms of stance markers, tense and other inflectional forms, and then classify all the data [8]. After that, the difference of the relevant frequency is mainly obtained through the software SPSS 17.0, which provides data for specific analysis.

IV. RESULTS AND DISCUSSION

A. Overall Distribution of Epistemic Stance Adverbs in Use

As is shown in Table 2, there is significant difference in the total number of the use of epistemic stance adverbs between AL-C and AL-A ($p=0.046$). As to the use of three subcategories of epistemic stance adverbs, there is significant difference in the use of evidentiality stance adverbs ($p=0.000$) while the difference in the use of certainty stance adverbs ($p=0.432$) and likelihood stance adverbs ($p=0.224$) is not significant [9].

TABLE 2. The Overall Distribution of Epistemic Stance Adverbs

Sub-category	AL-C		AL-A		X ²	Sig. (p)
	Sfreq	Proportion (100%)	Sfreq	Proportion (100%)		
Certainty	71	11.15	92	11.36	13.200	0.432
Likelihood	559	87.76	706	87.16	30.000	0.224
Evidentiality	7	1.09	24	2.96	4.651	0.000
Total	637	100	810	100	25.096	0.046

Note: Sfreq=the standardized frequency of certain stance markers (n/10000 words)

Table 2 shows the overall frequency distribution of epistemic stance adverbs in the two corpora. That is, Chinese and English native writers have the same tendency in using the three types of epistemic adverbs [10]. They have the strongest preference to use likelihood stance markers, which far surpass certainty stance markers and evidentiality stance markers. There is not much difference in the frequency of the certainty stance markers and evidentiality stance markers used by native English speakers.

From a comparative perspective, Chinese writers use epistemic stance adverbs less frequently than English native writers in general, especially in the use of evidentiality stance adverbs.

TABLE 3. High-frequency Likelihood Adverbs Used in AL-C and AL-A

Likelihood adverbs	AL-C	Likelihood adverbs	AL-A
Some	126	About	176
About	76	Some	134
Significantly	70	Rather	69
Highly	56	Often	68
Likely	46	Likely	43
Often	42	Around	28
Rather	40	Just	36
frequently	38	Relatively	28
		Typically	27
		Highly	25

Table 3 suggests that English native writers tend to use more diversified likelihood stance adverbs than Chinese writers. As shown in Table 2, although Chinese writers used fewer likelihood stance adverbs (Sfreq=559) than native writers (Sfreq=706), the chi-square test revealed no significant difference ($p=0.224$). This suggests that while a numerical gap exists, it is not statistically robust [11]. The use of probability adverbs can help writers safely present their stance without taking the risk of later being proven wrong [12]. The most frequently used likelihood adverbs are about, some, likely, which can all be used to express different forces of probability.

B. Causes of the Differences

Based on the above statistics and analysis, the author tries to explain the cause of the above differences as follows.

Firstly, due to the fact that English is a foreign language to which Chinese writers are not as familiar as English native writers, Chinese writers tend to use certain adverbs which they can master very well again and again in expressing their epistemic stance so as to avoid inappropriate expressions which maybe decrease the quality of their academic writing. As Hyland (2005) notes, EFL writers often rely on high-frequency stance adverbs to mitigate rhetorical risks. Secondly, the limited vocabulary may also have influence on Chinese writers' less diversity in the use of epistemic stance adverbs or overuse of certain adverbs like "likely" and "about". Cultural cognition provides deeper insight. Chinese scholars' underuse of evidential markers (e.g., 'according to data') aligns with Hofstede's (2011) collectivism dimension, where academic consensus precedes individual assertion. Conversely, Anglophone writing reflects individualistic norms through explicit source marking.

C. Cross-Cultural Perspectives on the Differences

The observed disparities in the use of epistemic stance adverbs may stem not only from linguistic competence but also from deeper cultural cognitive patterns. For instance, the underuse of evidentiality stance adverbs (e.g., "according to data," "reported by") among Chinese researchers could be linked to the traditional emphasis on collective consensus over individual assertions in Chinese academic culture. In Chinese academic writing, scholars often indirectly convey viewpoints through citations of classical literature rather than explicitly highlighting information sources with evidential adverbs. In contrast, English native scholars prioritize transparency in empirical research and individual academic contributions, leading to a higher frequency of evidentiality adverbs to clarify the basis of their claims. This finding aligns with Hofstede's cultural dimension theory, particularly the "individualism-collectivism" axis, suggesting that cultural values may influence the explicitness of academic expression through linguistic choices.

Additionally, Chinese researchers' reliance on likelihood adverbs (e.g., "about," "some") might be influenced by the habitual use of contextual implicitness in Chinese to convey uncertainty. For example, Chinese often implies vagueness

through context rather than explicit adverbs, potentially leading non-native writers to overuse a limited set of high-frequency adverbs while neglecting more precise alternatives (e.g., “approximately,” “roughly”). This phenomenon of “pragmatic negative transfer” warrants focused attention in second-language pedagogy.

D. Pedagogical Implications and Training Recommendations

Based on the findings, the following targeted recommendations are proposed.

Firstly, lexical expansion training could be by integrating a “stance adverb lexicon” into academic English courses, categorizing adverbs by semantic strength (e.g., high certainty: “undoubtedly,” medium certainty: “likely,” low certainty: “tentatively”). Contextual examples from corpora should illustrate nuanced differences, such as contrasting “about” with “approximately” in quantitative descriptions.

Secondly, cultural contrastive analysis could be done by comparing Chinese and English academic texts to demonstrate how cultural differences shape stance expression. For instance, show how English native scholars use phrases like “as demonstrated by” to clarify evidence sources, whereas Chinese scholars might prefer implicit citations.

Thirdly, researchers are suggested to develop corpus-based automated writing feedback tools to detect overreliance on specific adverbs (e.g., “likely”) and suggest synonyms (e.g., “probable”, “presumably”).

Interdisciplinary Collaboration: Encourage partnerships between linguists and journal editors to create style guides for non-native authors, specifying disciplinary preferences (e.g., evidentiality adverbs in empirical papers vs. precision in likelihood adverbs for theoretical studies).

V. CONCLUSION

In this study, the author embarked on an exploration to understand how epistemic stance adverbs are utilized by Chinese and English native researchers within the field of linguistics. The research was grounded upon a literature review that delineated stance markers as significant tools for conveying personal attitudes, feelings, and assessments, and further categorized them into epistemic, attitudinal, and style stance.

The methodology involves constructing two small corpora consisting of 60 academic papers from the journal *Applied Linguistics*—30 from Chinese writers (AL-C) and 30 from English native researchers (AL-A). We scrutinized the frequency of three types of epistemic stance adverbs listed by Xu Hongliang using AntConc software, followed by a detailed analysis using SPSS Statistics 17.0. The findings revealed that while there is a notable difference in the use of evidentiality stance adverbs between the two groups, with Chinese authors underutilizing them significantly, there were no significant differences observed in the usage of certainty and likelihood stance adverbs.

A. Major Findings and Implications

Through the above analysis, the major findings are as follows. Firstly, Chinese researchers and English native researchers show a similar tendency in the general use of epistemic stance adverbs, in which likelihood adverbs are

used most. Secondly, there is a significant difference in the use of evidentiality stance adverbs, while the differences in the use of certainty adverbs and likelihood adverbs between the two groups are not significant. Thirdly, the Chinese writers do not use epistemic stance adverbs as diversified as English native writers.

The overall distribution showed a preference among both groups for likelihood adverbs over certainty and evidentiality adverbs. However, when juxtaposed side by side, it became evident that Chinese researchers used epistemic stance adverbs less frequently than their English native counterparts, especially evidentiality markers. This observation could potentially be attributed to several factors. Firstly, given that English is a foreign language for Chinese scholars, they might rely more heavily on familiar adverbs to avoid potential misunderstandings or errors that could diminish the quality of their academic writing. Secondly, the limited vocabulary of Chinese researchers may lead to less diversity in their use of epistemic stance adverbs or an overreliance on commonly used adverbs like “likely” and “about”.

The above findings give us some implications in the writing of academic papers in English. Firstly, it is evident that there is a need for Chinese scholars to expand their lexical resources and enhance their command of epistemic stance adverbs. This expansion could include learning less commonly used adverbs that may be more appropriate or nuanced for conveying specific types of uncertainty or certainty. Additionally, focusing on the diversity of likelihood adverbs might help them present their arguments more persuasively without risking overgeneralization or understatement.

Moreover, this research points to a need for targeted training on the use of stance markers in academic writing. Such training should not only cover the basics of frequency and appropriateness but also delve into the subtleties of how these markers influence reader perception and comprehension. It would be beneficial if such training incorporated corpus analysis tools like AntConc and SPSS to provide empirical evidence of usage patterns and to facilitate self-directed learning.

Another implication is the importance of incorporating cross-cultural awareness into language teaching and scholarly writing workshops. Since cultural familiarity with the target language can impact the writer’s choice of words and grammatical structures significantly, understanding how cultural nuances influence language use could help reduce reliance on overused adverbs like “likely” and “about”.

B. Limitations and Suggestions for Further Study

Despite the major findings, there are still some limitations of this study and some suggestions for future research. First, the quantitative comparison based on frequency alone is far from revealing all of the characteristics and differences. Secondly, this study only focuses on the epistemic stance adverbs while there are other stance markers, as well other word classes to express stance, so the author cannot give a full picture of the stance markers used in academic writings by both sides. Lastly, due to the time consuming and laborious handling of data by hand, the size of the corpora in this study is limited. If follow-up research can expand the coverage of the corpora, the results can be more

representative.

CONFLICT OF INTEREST

The authors declare no conflict of interest.

AUTHOR CONTRIBUTIONS

Wu Guoye makes the main contribution to this paper. Wu Guoye conducted this work and wrote the article; Zhang Yi helped to revise the paper. Both authors had approved the final version.

REFERENCES

- [1] P. Crosthwaite, L. Cheung, and F. Jiang, "Writing with attitude: Stance expression in learner and professional dentistry research reports," *English for Specific Purposes*, no. 5, pp. 107–123, 2017.
- [2] A. Gilmore and N. Millar, "The language of civil engineering research articles: A corpus-based approach," *English for Specific Purposes*, no. 4, pp. 1–17, 2018.
- [3] G. Hofstede, "Dimensionalizing cultures: The Hofstede model in context," *Online Readings in Psychology and Culture*, vol. 2, no. 1, 2011.
- [4] K. Hyland, "Persuasion and context: The pragmatics of academic metadiscourse," *Journal of Pragmatics*, no. 4, pp. 437–455, 1998.
- [5] K. Hyland, *Disciplinary Discourses: Social Interactions in Academic Writing*. London, U.K.: Longman, 2000.
- [6] K. Hyland, "Authority and invisibility: Authorial identity in academic writing," *Journal of Pragmatics*, no. 8, pp. 1091–1112, 2002.
- [7] K. Hyland, *Metadiscourse: Exploring Writing in Interaction*. London, U.K.: Continuum, 2005.
- [8] K. Hyland and J. Feng, "'In this paper we suggest': Changing patterns of disciplinary metadiscourse," *English for Specific Purposes*, no. 7, pp. 18–30, 2018.
- [9] D. Biber et al., *Longman Grammar of Spoken and Written English*. Pearson ESL, 1999.
- [10] R. Liu and P. Ren, "A corpus-based comparative study of attitudinal stance adverbs in Chinese and English students' written language," *Journal of Jilin College of Education (Early)*, vol. 28, no. 12, pp. 126–127, 2012.
- [11] Q. Yan and J. Zhang, "A comparative study of attitude-standing adjective markers in a learner corpus," *Journal of Donghua University (Social Science Edition)*, vol. 14, no. 3, pp. z140–z144, 2014.
- [12] H. Xu, "Characterizing the use of authorial stance markers in Chinese advanced English learners' academic discourse—A corpus-based comparative study," *Foreign Language Teaching*, vol. 32, no. 6, pp. 44–48, 2011.

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